

## BIMETALLIC STEAM TRAPS AND AIR VENTS BM87

### DESCRIPTION

The BM87 is a series of robust and efficient bimetallic steam traps and air vents. These steam traps are recommended for steam process applications where sensible heat can be recovered, such as steam tracing lines, drip points, storage tank coils and steam air venting.

### MAIN FEATURES

Modulating discharge.  
Discharges condensate below steam saturation temperature.  
Excellent air discharge.  
Operates with superheated steam.  
Unaffected by water hammer and vibrations.  
Built-in strainer.

USE: Saturated and superheated steam.

AVAILABLE MODELS: BM87 – carbon steel.

SIZES: 1/2" to 1"; DN 15 to DN 25.

CONNECTIONS: Female threaded ISO 7 Rp or NPT.  
Flanged EN 1092-1 PN 40 or PN 63.  
Flanged ASME B16.5 Class 300 or 600.  
Socket weld (SW) ASME B16.11.  
Butt weld (BW) ASME B16.25.

INSTALLATION: Horizontal installation is recommended, but can be installed in any position.  
See IMI – Installation and maintenance instructions.



#### CE MARKING – GROUP 2 (PED – European Directive)

| PN 63                    | Category |
|--------------------------|----------|
| 1/2" to 1" – DN 15 to 25 | SEP      |

#### BODY LIMITING CONDITIONS

| FLANGED<br>PN 63 /<br>CLASS 600 * | FLANGED<br>PN 40 | FLANGED<br>CLASS 300<br>** | RELATED<br>TEMP. |
|-----------------------------------|------------------|----------------------------|------------------|
| ALLOW.<br>PRES.                   | ALLOW.<br>PRES.  | ALLOW.<br>PRES.            |                  |
| 63 bar                            | 40 bar           | 50 bar                     | 50 °C            |
| 48 bar                            | 30,4 bar         | 41,8 bar                   | 250 °C           |
| 43,5 bar                          | 27,6 bar         | 38,9 bar                   | 300 °C           |
| 29,1 bar                          | 18,5 bar         | 28,7 bar                   | 425 °C           |

PMO – Maximum operating pressure: 45 bar;  
TMO – Maximum operating temperature: 425 °C.

\* According to EN 1092-1:2018.

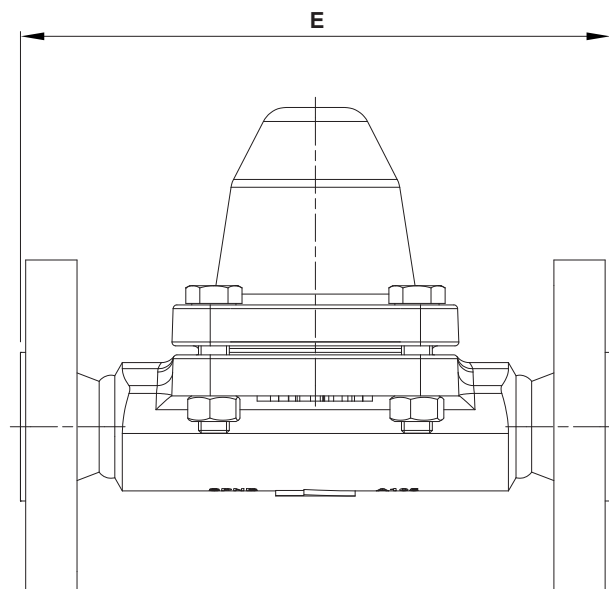
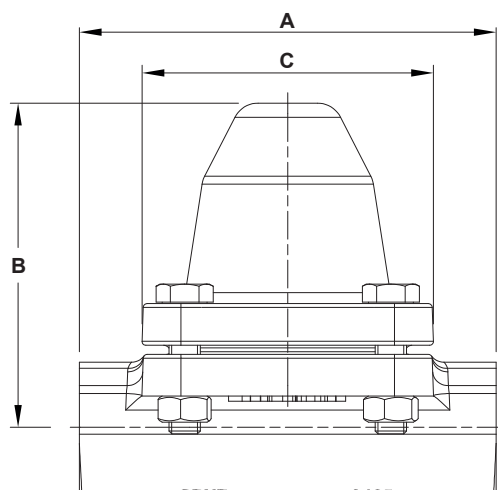
\*\* According to EN 1759-1:2004.

Body limiting conditions PN 63 or below, depending on the type of connection adopted. Rating PN 63 for threaded, SW and BW versions.

**FLOW RATE CAPACITY (kg/h)**

| MODEL    | SIZE                      | DIFFERENTIAL PRESSURE (bar) |      |      |      |      |      |      |      |      |      |
|----------|---------------------------|-----------------------------|------|------|------|------|------|------|------|------|------|
|          |                           | 4                           | 6    | 8    | 10   | 15   | 20   | 25   | 30   | 40   | 45   |
| (A) BM87 | 1/2" to 1"<br>DN 15 to 25 | 150                         | 230  | 280  | 320  | 390  | 430  | 480  | 500  | 580  | 590  |
| (B) BM87 | 1/2" to 1"<br>DN 15 to 25 | 1300                        | 1600 | 1800 | 2000 | 2300 | 2660 | 2900 | 3100 | 3900 | 4100 |

**A:** Hot condensate discharge 10 °C below saturation temperature; **B:** Cold condensate discharge at 20 °C.



**DIMENSIONS (mm)**

| SIZE         | THREADED / SW / BW * |     |     |             | PN 40 |             | PN 63 |             | CLASS 300 |             | CLASS 600 |             |
|--------------|----------------------|-----|-----|-------------|-------|-------------|-------|-------------|-----------|-------------|-----------|-------------|
|              | A                    | B   | C   | WEIGHT (kg) | E **  | WEIGHT (kg) | E **  | WEIGHT (kg) | E **      | WEIGHT (kg) | E **      | WEIGHT (kg) |
| 1/2" – DN 15 | 160                  | 125 | 112 | 6,2         | 210   | 7,5         | 210   | 8,3         | 230       | 7,6         | 230       | 7,8         |
| 3/4" – DN 20 | 160                  | 125 | 112 | 6,1         | 230   | 8,3         | 230   | 10          | 230       | 8,6         | 230       | 8,9         |
| 1" – DN 25   | 160                  | 125 | 112 | 6           | 230   | 8,7         | 230   | 11,2        | 230       | 9,1         | 230       | 9,4         |

\* In case of BW connections please indicate pipe dimensions when ordering. Body limiting conditions may be restricted by the BW end wall thickness. Consult the manufacturer.

\*\* Other face to face dimensions on request.

**MATERIALS**

| POS. N° | DESIGNATION            | MATERIAL                                     |
|---------|------------------------|----------------------------------------------|
| 1       | Body                   | A105 / 1.0432 (Equiv. P250GH)                |
| 2       | Cover                  | A105 / 1.0432 (Equiv. P250GH)                |
| 3       | * Gasket               | Stainless steel / Graphite                   |
| 4       | * Bimetallic regulator | Corrosion resistant bimetal; Stainless steel |
| 5       | * Strainer screen      | AISI 304 / 1.4301                            |
| 6       | Bolt                   | A193 Gr. B7                                  |
| 7       | Nut                    | A194 Gr. 2H                                  |

\* Available spare parts.

